

**Listing of the Claims:**

This listing of claims will replace all prior versions and listings of the claims in the application:

Claims 1–137 (canceled).

138. (currently amended). A microelectronic device useful for the electrochemical detection of a nucleic acid species, said device comprising:

a microelectronic substrate having first and second opposing faces;

a plurality of conductive oxidation-reduction detection electrodes on said first face; and

a plurality of oligonucleotide capture probes immobilized on a non-conductive layer on said first face adjacent said oxidation-reduction electrodes;

with each of said different plurality of oligonucleotide capture probes positioned adjacent a different oxidation-reduction electrode;

and with each of said plurality of oligonucleotide capture probes and said oxidation-reduction detection electrodes electrically connected by an aqueous solution, said aqueous solution having a transition metal complex therein;

and wherein said aqueous solution connecting each of said plurality of oligonucleotide capture probes and said oxidation-reduction detection electrodes is the same.

139 (Cancelled).

140 (previously presented). A microelectronic device according to claim 138, further comprising a contact electrically connected to said oxidation-reduction electrode.

141 (original). A microelectronic device according to claim 138, wherein said substrate is silicon.

142 (original). A microelectronic device according to claim 138, wherein said oligonucleotide capture probe is from 4 to 100 nucleotides in length.

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Claims 143–151 (canceled).